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                Z*Net Atari Online Magazine
               (´') 1990 by Rovac Industries, Inc.

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                       Z*NET ATARI NEWSWIRE
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ERRATA: NO TOS 1.6 IN STACY
Last week, Z*Net reported that Los Angeles Atari dealers received STACY
portable computers. Within that story, we reported that the machines
did not all seem to be alike, and that one store had TOS 1.6 in their
machine. This is apparently not so, as it has been pointed out to us
(abundantly!!) by programmers and developers that 1.6 cannot operate in
a Stacy. The story originated directly from an ATARI employee who was
on hand for extended attempts to set up the machine in question at one
of the dealers, and it was his insistence that the Stacy "showed" that
it had TOS 1.6. Bob Brodie of Atari has assured us that all STACY
computers, whether prototype or production, have TOS 1.4.

SURPRISE CHARGES TO WOA VENDORS
At least one vendor who had a booth at the latest World of Atari show
was recently surprised by unexpected bills. MID CITIES COMP/SOFT from
the Los Angeles area, received a bill of $800 from Greyhound Exposition
Services, supposedly to pay for services of union workers at the show.
Manger Jane Hughes says that workers appeared at the dock when Mid
Cities was unloading on Friday afternoon before the Anaheim WOA, and she
was told that they were to move the equipment and stock. After waiting
more than an hour for a positive answer as to whether they were required

to use this service, she allowed them to do so, as did the other vendors she saw. Jane said that in the end, they were not given a choice, and that it was quite different than the previous year when they carried their own stock. She recalls no mention in any WOA show materials about extra charges for union workers, and she did not agree to any charges with anyone on the show site, so the bill was completely unanticipated when it arrived a month later. As the charges would wipe out much of what had been expected to be her company's profit from the show, she protested to Greyhound. They told her that all the dealers had to use their services, and that many of them have received their bills by now. Jane says that she has sent the bill and a letter of protest to Richard Tsukiji, promoter of the WOA shows. A few vendors got away without the union help. At least one dealer, SAN JOSE COMPUTER, is said to have gotten special permission from WOA management to move their stock in late on Friday night, and COMPUTER GAMES PLUS of Orange, California, arrived too late to unload Friday... but they were allowed to anyway, after the union workers had left for the day. Word from ATARI is that they paid over $3,000 to Greyhound for loading and unloading, despite volunteer workers from Southern California user groups doing 100% of the packing and setup/breakdown of their area.

WOA VS. GLENDALE CONTINUES
Richard Tsukiji has not made a public statement referring to his recently announced World of Atari show in August in San Jose, California, since being notified by Atari that they had major concerns about scheduling. However, we have reports that vendors have continued to be contacted by Tsukiji, who is still selling the show hard. When they asked him if Atari had committed to appear or to support the show, he is reported to have only said that Atari would be crazy not to support a show in their own backyard. Atari has provided all of the vendor equipment and advertising money for WOA shows to date. However, Atari has announced their commitment to support the user-group sponsored GLENDALE show in early September, as well as several industry shows in June, July, and August. There has been some talk of vender dissatisfaction with what they see as Tsukiji's indifference to concerns that his schedule will damage the Glendale show, and several have said privately that they will not attend further WOA shows as a consequence.

ATARI OWES PORTFOLIO ROYALTIES:
DIP, the UK company that designed the PORTFOLIO computer for Atari, is reported to claim that Atari has defaulted on their royalty payments for the units. Some $4 per unit sold was to have been paid to DIP for the continued use of their operating system. DIP is said to have cut off support for Atari regarding the Portfolio, pending resolution of the delinquent payments. A newer revision of DIP's operating system (2.11, version 1.1) is available now only in the machines sold under DIP's own brand, which are not available in the USA. It has been reported that Atari has similarly not paid CONNER, the hard drive manufacturer, for their drives being used in the STACY computer. This may be due to the design problems that may or may not have been completely resolved and that required many Stacy computers to be refitted with new drives. Industry observers are not surprised by the payment stalling, and say that this is fairly normal procedure for large companies who are trying to force a renegotiation of terms or to break a contract in order to deal with a new supplier. We all recall that it is the Tramiels who promote the saying, "Business is War".

GFA UPDATE: GOOD NEWS?
Bill Rehbock posted a copyright message in the ST RT Bulletin Board
earlier today stating that a new and improved customer support and new
and improved versions of GFA Basic would be coming soon. The US office
for GFA Datamedia UK will be opening soon and Antic Publishing would no
longer be distributing GFA Basic as of June 1, 1990. Along with the
updated GFA Basic, other new utilities include GFA GEM Utilities, a
collection of source code and bindings to make life with GEM much
easier, and a new and improved shell to replace MENUX.


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                           Z*NET NEWSWIRE
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WESTERN UNION AND MCI
Western Union and MCI have agreed to interconnect their public
electronic mail services, which will allow the exchange of messages.
Western Union 400 service will be interconnected with MCI Mail's
XChange 400 service, using the international X.400 company's EasyLink
public messaging service. Western Union announced previously that X.400
interconnections with AT&T Mail, SprintMail, General Electric
Information Services and the IBM Information Network.

NEW EDITOR
John Dickinson, former executive editor of west coast operations for PC
Magazine, has been hired as the monthly's editor, reporting to Editor-
in-Chief Michael Edelhart. Preston Gralla has been named editorial
director, responsible for designing new sections.

WINDOWS 3.0 TEST DRIVE OFFER
PC World and InfoWorld readers will be offered a "test drive" of
Microsoft's new Windows Version 3.0. Disks containing a working copy of
the software and a tutorial will be available to readers who return a
postage-paid card. The card will be inserted in the July issue of PC
World, which will be mailed to subscribers June 8 and will be on the
newsstands starting June 19. The July issue also features a preview of
Windows 3.0. Readers of the May 21 issue of InfoWorld also will have an
opportunity to get the disk by completing a one-time-only postage-paid
order card.

PIRACY RAIDS
The SPA announced last week that its court ordered raids earlier this
month in LA at the National Business Academy resulted in seizures of
more than 600 copies of allegedly illegal software valued at more than
$250,000. Marshals acting on behalf of Lotus, Microsoft and WordPerfect
in its May 8 raids on the Van Nuys, Inglewood and Glendale, Calif.,
locations. NBA is an adult vocational school that trains individuals in
word processing and spreadsheet programs. The school is alleged to have
illegally used, duplicated and distributed software produced by the
three publishers.

TWO SUITS SETTLED

Apple announced it has settled two class action lawsuits filed against the company in 1989. The suits, Hussey vs. Apple Computer, and Zeid vs. Apple Computer, both alleged damages to persons who purchased Apple stock from Jan. 17 through Jan. 27, 1989, resulting from events occurring during January 1989. The settlement calls for Apple and its insurance company to pay a total of $5.65 million.

NEW CHIPS
National Semiconductor unveiled some new chips that are geared toward specific applications rather than general purpose functions. Two of the microprocessors are the first 32-bit processors that incorporate software-programmable digital signal processing and are designed for products such as laser-beam printers and fax machines. The NS32CG160 integrated system processor is geared for use in mid-range office peripherals including monochrome and color page printers and document scanners.

UNINTERRUPTIBLE POWER SUPPLIES
Exide Electronics announced uninterruptible power supplies for office environments. The Powerware Plus 5 is the first UPS system to provide customer configurable input/output voltage, phase and frequency with function key control and ease.   It supports the power protection requirements of data processing, telecommunication, and process control applications. The Powerware Plus 5 is currently available through authorized distributors and manufacturing representatives. List price begins at $4,730.

ULTRA 96 SMARTMODEM
Hayes announced immediate North American availability of Hayes V-series ULTRA Smartmodem 9600 (ULTRA 96). ULTRA 96 provides CCITT V.32 for 9600 bps modulation enhanced with CCITT V.42bis error-control and data compression for data throughput up to 38.4 Kbps.

AT&T SPONSORS CURRENT ISSUE OF COMPUTER RESELLER NEWS
Computer Reseller News announced that a single advertiser, AT&T Computer Systems, is the sole sponsor of its issue published June 1, 1990. AT&T purchased all available 24 pages of the 48-page publication for use by itself and its resellers.   The CRN midweek issue is timed for distribution at COMDEX. CRN, recently honored by the Computer Press Association as the best newspaper in the industry, will distribute the issue to its 64,000 weekly subscribers, as well as the COMDEX 10,000 attendees.

MEDIAGENIC AND MAGNAVOX REACH AGREEMENT
Mediagenic announced that they have reached an agreement with Magnavox for long term payment of the patent infringement damages awarded to Magnavox earlier this year. The agreement provides for monthly payments of $150,000 from July 1990 to Dec. 1993, with a balloon payment at Dec. 31, 1993. The agreement covers the $6.6 million in damages awarded in the previously announced decision in a patent infringement suit brought by Magnavox against Mediagenic (then Activision) in 1982.

NINTENDO SUES ANOTHER
Nintendo filed a lawsuit in U.S. District Court in San Francisco against

Lewis Galoob Toys for copyright infringement. The suit claims a new
Galoob product called Game Genie, which is designed for play with a
Nintendo home video game system, creates "derivative" works of Nintendo
copyrighted video games, in violation of U.S. law. Galoob's Game Genie
is connected to a Nintendo video game cartridge and inserted into a
Nintendo home video game hardware unit. When operated, Game Genie
changes certain essential features of a Nintendo video game. An example
of the changes, in Nintendo's Super Mario Bros video game, Game Genie
can be used to alter the main character's speed or cause him to float
through the air to avoid obstacles originally programmed into the game.
The number of lives a player can lose before the game ends can be made
indefinite and the player can skip entire levels of game play and take
shortcuts to progressively more difficult worlds, or game levels, which
a player must enter in order to complete the game.

ELECTRONIC ARTS SIGNS MICHAEL JORDAN
Electronic Arts announced it has signed a contract with Chicago Bulls
Michael Jordan to help co-design multiple video and computer games.
Electronic Arts plans for these products to be available for play on the
Nintendo Entertainment System, in addition to other systems.


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 -> Wallies Take your generosity and eat it for Lunch. <-

There is a new breed of modem user out there in modemland, worldwide.
We have nick-named them "Wallies" or "Wally" for short. 'Wallies' are
the users who call their local BBS and demand to have full access to all
parts of the BBS after defaming your name and leaving messages that a
policeman would cringe at. 'Wallies' are a strange breed of people.

-> If Wallies had their way they would download at 19200 baud <-

The 'Wallies' are the users who if they had their way would design a
modem that uploads in 100 baud and downloads in 19200 baud. The fact
that you have a upload/download ratio only serves to feed their need
"to catch the SYSOP out". "Why upload new software to this BBS? We
have a better idea. Lets upload a small text file we dloaded from here"
Now that the 'Wallies' have split up an archive and resent the files,
their upload/download ratio is set for a further download frenzie.
There is a new cry among "Wallies", 'We want a comms program that will
allow 10 megabytes of files to be downloaded in one session, and fool
the upload/download ratios'.

-> It is Un-cool for a 'Wally' to logoff a BBS the normal way <-

The 'Wallies' will logon to the the BBS with the "Control C" key at the
ready. Then when the system has been changed they will hail abuse in
the message section at you for not telling them. It is not deemed
"COOL" for a 'Wally' to check if there is any new system messages at
logon. The BBS menu is the second biggest source of amusement to the
"Wallies". They will win the "Wally of the week award" if they find
some hidden menu option. Or get second place in this weeks awards if
they find a series of keystrokes that will cause the BBS to 'CRASH'.

-> Wallies are in constant search for the thing called "TOS" <-

To win the 'Wally of the month award' a 'Wally' must not only crash a
BBS, but also it appears find his or her way to the thing called "TOS".
You can see them striving for this goal in many ways. By continual
"hacks" at the menu prompts, allowing time outs in the "Doors" area, or
the most common approach is to badger the SYSOP with messages or chats,
demanding they be given "SYSOP status" so they can look at your system
in depth. The later of these is by far the easiest way to spot a
'Wally'. After months of defamation of your BBS in the message base or
in Email they will demand that you either give them access as a "SYSOP"
or they will crash your BBS. I might point here if they do not make
this demand at least once a month they will be deemed a 'useless Wally'
by their peers.

-> A 'Wallies' sport is to see if the Sysop can catch them <-

To enhance the kudo's the 'Wallies' will receive from their peers they
decide to logon to a BBS under many names. When they logon to the BBS
they will page the "SYSOP" to see if he is around and if as expected by
the 'Wally' he is not around he/she will continue their acts of
terrorism against the innocent BBS.

-> Being caught by the SYSOP is part of the FUN <-

The 'Wallies' bask in glory the day the SYSOP nearly caught them. Tales
of 'horror' and how they escaped detection from a SYSOP gives them a lot
of mileage amongst their "Wally" friends. "Ah the SYSOP of a BBS
deleted my USER id/ but he did not know I had 3 others. Now I will
kill his BBS!!" The 'Wallies' see this as open season on a BBS when the
SYSOP deletes one of their User numbers.

How to spot a WALLY
~~~~~~~~~~~~~~~~~~~~~
1/ Multiple User numbers.
2/ Constant message abuse, ie foul language in the message base.
3/ Stories of "HACKING a BBS", real hackers stay quite.
4/ Constant uploads of the same small unarchived, duplicated files.
5/ The next sequential file downloaded from the files section by another
   user.
6/ When you ring the user that is on-line and they say "WHAT IS A BBS?"
7/ Intimidation while on-line, or on the phone by a 'Wally'
8/ The guy who has a 60000 baud modem on his ST he dials the moon with.
9/ The people who will NOT read system messages/notices.
10/ The people how know it all and will NOT be TOLD, as they know best!

                        oooooOOOooooo
         //
         // Gentlemen, Ten things not to do to your Girlfriend //
         //

[1] Tell your girlfriend you have a computer
[2] Admit to your girlfriend that your computer is your mistress
[3] Use your computer when your girlfriend is at your house
[4] Leave the modem on the line and blow your girlfriend's ear off
[5] Propose to your ST instead of your girlfriend
[6] Propose to your Girlfriend and when she says "no", say "Operator
    Error"
[7] Confuse your girlfriend voice with that of the computers
[8] Call your girlfriend "Atari" instead of 'Honey'
[9] Tell her "Just a minute, I'll finish this", and arrive 3 days later
[10] Tell her that you will fix the garden, the day you brought a new
    game

              [Caution "ST's" are jealous things]

The End... Finish... End of File... EOF... Terminated at request
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                           PD/SHAREWARE STop
                    ===============================
                            by Mark Quinn

    File name: DBIIDEMO.LZH   Author: Robert Luneski
Program name: Diamond Back II demo   File type: Utility

I am one of the few hard drive owners who takes the "make frequent
backups" rule seriously. Even before I was initiated into hard diskdom
by the purchase of a used Supra, I backed up EVERYTHING I deemed worthy
of keeping. This policy has failed me only once. Both copies of a text
file died one day. It took enough time to reconstruct the file to drive
home the necessity of making frequent backups. A one-dollar investment
in another floppy is certainly preferable to the alternative: the loss
of the time you've invested in the data on your hard drive.

Diamond Back II is a means to the end of protecting your investment. It
has the following features. (From the docs and help files.)

 - 100 percent GEM user interface
 - Extensive online help
 - Full or partial backup/restore of any number of drive partitions,
   directory paths, single directories, or specific files in a single
   pass
 - Flexible creation of backup sets from different paths or partitions
 - Wildcard masks to include or exclude files may be different for each
   path
 - Incremental backups by date/time or archive bit (TOS 1.4)
 - Load/save custom backup configurations
 - Automatic drive switching
 - Full or partial restore
 - Recreate original directory tree or specify new structure during
   restore
 - Flexible disk formatting options
 - Preformatted disks do not have to be the same type
 - Intelligent Image backup option
 - File compression and encryption available

- Backup to floppies of other partitions
  - Create CRC validation logs from hard disk or floppy files
  - Backup and restore Spectre partitions
  - Create file listings during the backup or from floppy disks or
    selected paths
  - Turn verify on and off

We bought a copy of this program several weeks ago, so I speak from
experience. I had no problem backing up both partitions on my hard
drive with D.B. II. I simply fed my GTS-100 unformatted disks, and the
program filled them readily enough. Diamond Back II is a very well
thought out program. This is the first and the last backup utility for
the ST we'll have to buy.

                        Quinn's Quickies

MVG_DEM5.LZH
 Update. Demo of "Dr. Bob's MultiViewer Graphica", which allows
 editing, printing, etc., of monochrome format files (IMG included).
 Many new features.

KP_6_2DM.ARC
 Update. Demo version of Kidpublisher Professional, version 6.2.

HYSCRN13.ARC
 Update of HyperScreen. Requires 1 megabyte to run.

JAC_BALL.ARC
 Game. Blast your opponent silly in this simple game which pits two
 space ships against each other.

DIRSORT.ARC
 Sorts file directories. Sorts folders, too.

FONEVOIC.ARC
 Shareware by Albert Baggetta. Put a synthesized voice on your
 answering machine. Also has sound effects.

GOODEMO.ARC
 Backup utility. Backup your hard disk files for safety's sake.

BIGCOLOR.LZH
 Shareware. Emulates monochrome on the SC1224 monitor.

CARTDEMO.ARC
 Demo of a level editor for Dungeon Master and Chaos Strikes Back.

COLA_2.ARC
 Cost of Living Adjustment Calculator. Figures the value of commodoties
 through the years, taking inflation into account.

SPACEWAR.ARC
 Keep your ship in orbit in the gravity well of a star while trying to
 defeat your opponent.

VERSYS.ARC
 Shareware, utility. Performs date-stamped, incremental backup of
 files. Good for programmers, or anyone else who must make frequent
 backups.

FCOPY30.LZH
 Utility. German copy program. Produces Spectre and MS-DOS formats.
 Contains English manual.

PCXLOADR.LZH
 Loads D.E.G.A.S. Elite (.PC1 or .PC3) pics.

PEANUT.ARC
 Game. Shareware by Albert Baggetta. Find out which one of a group of
 unsavory characters stole the peanut butter.

KV_ME1ST.ARC
 Educational game. Put the drawings in the proper sequence.
 Reminiscent of many an IQ test.

                    ==============================
                     PORTFOLIO PUBLIC DOMAIN SHELF
                    ==============================
                            by Ron Kovacs

The following files are now available in CompuServe's APORTFOLIO Forum.

PARSE.ZIP   Title   : text file analyzer
 New version of parse, to eliminate the divide by zero error in certain
 cases. This program will display a count of characters, word,
 sentences, as well as a reading level. Modified for the Atari Screen.

TIMEZN.ZIP   Title   : timezone
 This is a program to set the clock as you pass thur different time
 zones.

TONE.ZIP   Title   : manual touch tone dialer
 This is a little manual dialer for the portfoilo.

AAF.ARC   Title   : "Advance Australia Fair"
 AAF.ARC contains a batch file which will play the Australian national
 anthem through the Portfolio's tone generator while displaying the
 words to the first stanza. In order to use this file you must have an
 ANSI driver installed and you must have BEEP.COM by Bruce Coleman, both
 of which are available in the file YANKEE.ARC.

DIAL.COM   Title   : Alphanumeric dial program.
 Small manual dialing program. Use numbers or letters, like normal
 touch-tone keypad. What should I do with Q & Z? Esc to exit.

PC.ARC   Title   : Programmer's Calculator
 Programmer's Calculator manipulates and converts integers in hex,
 octal, binary, or decimal. ARC file contains .COM as well as user's
 guide document. Programmer's Calculator runs only on the Atari
 Portfolio.

BATCH.ARC   Title   : Usefull batch files
 Very usefull batch files, they control the keyboard buffer and can be
 used for jobs like putting the portfolio into server mode, call

somebody etc.

FUNCTI.ARC   Title   : function analysis
 FUNCTIO.EXE is a program that uses the graphic capabilities of the
 ATARI Portfolio. The program plots X-Y diagrams from any equation
 the user supplies, where Y is a function of X.

TODAY   Title   : TODAY lists your appointements for today.
 Today! Version 2.0, need 500 Bytes less. Make your daily use of your
 Diary much faster and easier. It lists your appointements for today.

COPY1.ZIP   Title   : copy files from one CCM to another CCM
 A simple copy program to tranfer files (63k or less) from one memory
 card to another.

PORT2W.ZIP   Title   : unwrap wordwrapped files
 A simple program to "unwrap" the portfoilo's editor files.

PSTAT.ZIP   Title   : status display program
 A program to display the various setting on the portfolio.

PTOOL.ARC   Title   : PORTOOLS.ARC - Portfolio Tool Kit Version 1.0
 A set of useful utilities for the Atari Porfolio. Includes full
 documentation. Utilities include option setter, tone generator, file
 finder, disk information, system information routines.

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                         LETTERS TO Z*NET
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The following is a letter lost and later found that we failed to include
a few weeks ago. Although it is late, I feel it is important to pass
the word. - Ed.

Ron, I am in a bad situation here and was wondering if perhaps you and
Z*Net may be able to help me out?

On 10/22/87, I bought a 2400 bps modem from Communications Electronics,
Inc. The price of the modem was $200 and came with a 5 yr limited
warranty. The modem did eventually go on the blink, so I called CEI and
they gave me the number for the manufacturer of the modem and also the
warranty holder, InComm Data Systems, Inc., located in Wheeling,
Illinois. I called InComm Data and told them the modem was in need of
repair, so they gave me an RMA number (Returned Merchandise
Authorization) #900-180. I sent them the modem and a letter describing
the problems I was having with it on Feb-13-90, by UPS, 2nd day air.
They told me on the phone that it generally took 3-5 days for all modem
repairs. As of March-15-90, I still had not received the modem, so I
called them and they verified that they had received the modem on
Feb-15-90, but it had not been repaired as of that date. As a matter of
fact, the box had not even been opened.

I spoke to service manager Brad Grinstead, told him of the problem and
gave him my voice number. He said he would check it out and get back
with me, which he never did. As of Apr-10-90, I still had not received
any word of my modem, so I called InComm Data once again. I asked for
Brad Grimstead, service manger and also Vice President of the company.

Well, Brad Grimstead was busy, so I left him my voice number once again so he could return my call. As a matter of fact, I called InComm Data 4 times that day, on Apr-10-90, getting absolutely no response from Brad Grimstead whatsoever. The only help I did receive was from whomever happened to answer the phone. I also called an attorney that same day and he informed me that there really aren't ANY laws to protect consumers in a situation like this. Court costs, etc., would make almost any action against InComm Data impractical.

So, as to this date, I really don't think InComm Data even intends to return my modem. I have been running my BBS on a modem loaned to me by a good friend and it looks like I will have to go buy a new modem to run my BBS on and forget about the $200 I invested in my original modem from InComm Data Systems. The only re-course I have is in messages such as this one to advise other potential modem buyers/users to avoid purchasing a modem manufactured by InComm Data Systems. One would think the Federal Government would have laws protecting consumers against warranty fraud but I have now talked to 2 attorneys and they both inform me there is nothing to be done.

So, to others, PLEASE check the manufacturer of the modem if you intend to purchase a new modem or add one to your existing equipment. My story I have presented to you is 100% true and pure fact...I have all receipts, warranty slips, etc., to prove this to anyone who is a dis-believer. Please don't make the same mistake I did. You will be sorry if your modem ever needs to be repaired. It has been 55+ days and my modem still has not been returned and I get no response at all from InComm Data Systems.

Grady Johnson
Sysop of Fantasy Island BBS
419-691-6459 Oregon, Ohio


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                  ==============================
                      SO, YOU WANT TO BE AN ST
                         HARDWARE DEVELOPER
                  ==============================
                            by Jim Allen

              Reprinted by permission from the April/May 1990
              Issue of ST Journal Magazine Volume 1, Issue 1.
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ST hardware developer - sounds like a glamorous and exciting occupation, but the truth is, I wouldn't wish it on my worst enemy - well, maybe I _would_.

The first thing you need to know about the ST is that it is a very simple computer. The design is straight-forward. (The block diagram would be as busy as a Death Valley roadmap.) Motorola 68000 based computer designs are very sensible; no funny timing relationships, no esoteric circuits. All you really need is the databook, available from Motorola for the asking. Think of the 68000 as, not the "Model T," but the "Model A" of computer chips; not the first chip, but just as utilitarian and replete with optional extras as the original.

The second thing you need to *know about the ST is that it is also a

very complicated computer and has been very carefully designed. Atari
built it as both a 68000 (simple) computer, and a DMA equipped (complex)
computer. The element that sets the ST apart from other computers is
the DMA feature. This same feature also makes the ST significantly
faster than the Mac Plus. The ST also has a complex video design. Its
video system (invisible to the 68000) is a special kind of DMA where
memory information is sent to the screen without interfering with the
68000 and its duties. This requires a memory that is twice as fast as
would normally be needed. And, since it is twice as fast, the memory
meets the information needs of both the 68000 and video circuit without
interference to either.

The reason I am so negative about being a hardware developer for the ST
is that this complication has led Atari to take some shortcuts. The
video circuit, and, indeed, all the ST circuits, make assumptions about
the type and speed of the processor with which the system is equipped.
Flexibility has been omitted in order to achieve the high degree of
integration the ST represents. This leaves hardware designers in a
tough position. There is no formal documentation on the circuits; no
theory of operation manuals to ease the task of providing enhancements
to the basic ST design. Each developer is on his/her own to reverse
engineer the ST circuits in order to come to an understanding of the ST.
In the case I am most familiar with, that of Fast Technology, it took
months behind an oscilloscope and logic analyzer before we fully
understood the design. For us, this has paid off; for others, it has
led only to failure.

Atari didn't really want the ST to be upgraded. They, didn't
incorporate any means for the customer to expand memory or enhance
performance. It is this difficulty of wedging into a fixed design that
has made so many companies come and go in the ST market. There have
been at least 30 memory-upgrade board manufacturers; some great, some
terrible. But all faced the incredible challenge of going where no man
has ever been before, or has even been wanted.

If you can get past this obstacle and come to understand the ST well
enough to alter it, then you may have the right stuff. As long as you
know, going in, that there are 9 revisions of the ST motherboard
(there's at least one I haven't seen); as long as you know the only
place to get schematics is from an Atari dealer; as long as you know
that there are many versions and revisions of the custom chips, some of
which don't work too well; and, as long as you've been warned, you'll be
ok. Once past the obstacles, you will be faced with a sometimes hostile
developer community. Some members of this community, especially the
'importers', will do anything they can to stop you. Importers,
typically, don't develop products; they just package and sell them.
Therefore, they have no respect for the work you have done. Always
expect to be bushwhacked early and often. If you have a competitive
product and go up against the "big" guys, you will have a rough journey.
Success takes more than just a superior product and you must work just
as hard as you would if you were in the Mac or PC market. While there
are fewer competitors in the ST market, there are also fewer customers
and those customers are much more careful with their money. There may
be 80,000 STs in North America, but I suspect most are buried in closets
across the continent. Expect to reach only a few thousand people with
your product. So far, the most successful single product in the Atari
field is the Mac emulator, Spectre, by Gadgets by Small. Gadgets has an
extremely unique and complicated product that addresses a real need...
want. Other, more specialized, devices sell in only a few dozen units
rather than thousands.

THE RULES

Rule #1:   Make sure the price is right. Always price your product so
           you will definitely make money. You must at least make back
           your investment in R&D or all you'll have is a hobby. Don't
           think that lowballing the price will bring the flocks to your
           door; people will pay for a product that is well executed and
           solves a problem. Charge what the product is worth, not what
           some people tell you they would pay.

Rule #2:   Do your market research. You need to understand the problem
           before you can administer the cure. Never take on a product
           that "sounds' as if it will be a winner. Everyone will tell
           you that they want to put blitter chips in their 520/1040 STs.
           It sounds simple, right? Wrong! The cost of the chip is so
           high that no one would actually pay what it's worth. The
           blitter doesn't provide $150 worth of speed-improvement, so,
           no one will pay for it. But, everyone will tell you that it
           would make a great product. Market research doesn't mean
           going out and asking people what they want (they'll tell you
           they want the moon and the stars... free!); it means asking
           them what "problems" they are having. You need to find the
           root motivations behind the desire. People want the blitter
           chip because they think it will speed up their computers.
           They wanted speed not the blitter, specifically.

           So, go further and analyze this need for speed. This analysis
           is what led us at Fast Technology to build the Turbo16. We
           realized that the need for speed went way beyond drawing
           lines. It was obvious that people wanted a faster computer
           and were willing to pay the price. The blitter chip was
           merely the device they thought would get speed for them. In
           your product area, you must know what will get the best
           results. You must develop the solution that makes the
           customer happy and makes you money.

Rule #3:   Know your pundits. There are a few well-respected individuals
           in every market who can help you get your foot in the door.
           These are the same people you have listened to in the past.
           Dave Small is one example; he always tells it like it is.
           When it comes to your product, both you and your customers-to-
           be can count on him.

           It is especially important with hardware that you get the word
           out right away. You can circulate prototypes among the
           pundits and let them get the feel of your product. This can
           go a long way in establishing a high level of anticipation for
           your product.

Rule #4:   Contact all developers whom your product might affect. Let
           them have access to it as soon as possible so that they can
           address any incompatibilities in advance. You will quickly
           learn whom you can rely on for help and whom you cannot. Most
           developers are very helpful and friendly and will bend over
           backwards to help you. Some names that come to mind: Gadgets
           by Small, ISD; Avant Garde; Codehead; Gribnif, ICD; Practical
           Solutions; and a few others. These people have been there;
           they know what you face and will ease your entry into a tough
           occupation.

Rule #5:   Contact *Atari and let them know what you are doing. Become a
           registered developer and ask for all the help you need. Don't
           expect to get it, but ask. Actually, Atari is changing and
           trying to be very helpful. They don't have tremendous
           resources, and some things just aren't documented, but most of
           their engineering staff, although they can't be of much help,
           will be glad to offer what information and advice they can.
           Atari can help you with sales leads and other matters and will
           help support you at trade shows. Get to know who's who so you
           can ask the appropriate person for help.

Rule #6:   Get to know the press... both printed magazines and online
           services magazines. They'll help you reach your market
           through advertising. Get all the free publicity you can;
           there's no such thing as too much. Persuade the press to do
           reviews - a "preview' review at first, then an in-depth review
           once the market is aware of your existence. Have press
           releases and good, catchy brochures printed, and hand them out
           freely.

Rule #7:   Rely on local user groups. Visit them early on and use them
           to judge acceptance of your product and marketing methods.
           Drum up business locally as early as possible so you can find
           and solve any problems within driving distance. Use a limited
           -beta tester... someone who will use your product to death in
           return for getting a price break. I can't tell you how
           valuable such a person can be, especially if, as a "special'
           customer, he has money invested in your product.

ENOUGH FOR NOW

Those are the rules for now. Knowing all this, if you still want to be
a developer, then you might just have the right stuff. Next time, I'll
tell you about all the business pitfalls to avoid.

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                     USING TOS 1.4 AND NEODESK 2.05
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                            by Tom Blair
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                     Reprinted from the May 1990
                   Issue of the Puget Sound Atari News

Well I just installed the TOS 1.4 chips in my old 520ST and the
experience was both good and bad. I really like the new TOS (too bad it
took so long to get and it costs so much). I did spend a GREAT DEAL OF
TIME getting everything to work properly. Here is the key... If you
use TOS 1.4 and run Neodesk then you should put SHEL_FIX.PRG in your
auto folder, AS THE LAST PROGRAM TO RUN. SHEL_FIX.PRG comes with
NEODESK but Gribnif Software never mentioned that it should be run last.
I was running Mouse Doubler and the ICD Timeset program after it and
nothing seemed to work. I have had no trouble since I reordered the
programs in my AUTO folder.

I won't repeat the explanation that Gribnif gives for needing

SHEL_FIX.PRG but suffice to say that I did not need it under TOS 1.0.
After installing the new TOS and using Neodesk, I found that Flash would
crash when I hit the right mouse button. Phasar 3.0 also crashed. I
was beginning to think that I was not going to be able to use Neodesk,
which I really like. Anyway, I hope this saves somebody from the
aggravation that I experienced.

The improvements in TOS 1.4 have been mentioned several places (i.e.,
START, Jan. 1990). In my opinion, Atari should have come out with it
much earlier. Secondly, since it fixes a number of bugs in the old TOS,
the user shouldn't have to pay ~$125.00 to have it installed. OK, the
new TOS contains several "enhancements" as well as "fixes." This is
really a matter of your perspective. I consider TOS 1.4 the operating
system that Atari should have had from the very beginning. It is clear
that TOS 1.0 was a rushed job. It contained several bugs and did many
things very inefficiently. I realize that any design can be improved
but TOS 1.0 simply left too much room for improvement. I think that
Atari should be willing to just cover costs in supporting good customers
who want to upgrade. I know, everybody has lots of free advice for
Atari Corp.

The most noticeable feature of TOS 1.4 is the disk read/write speed
improvement. Based upon my simple test of saving a Word Writer file to
my hard disk, it is faster by a factor of 3. Since I no longer need
(nor can use) TURBODOS.PRG, I have gained over 100k of memory and still
have the same speed. I also gained same memory by eliminating several
TOS 1.0 patches from my AUTO folder. After all, the name of the game is
speed and memory, right? That's what most computer improvements boil
down to.

To summarize, I am very glad I installed TOS 1.4 even though I was
unsure at times. I would strongly recommend it if its cost was $50.00.
At the current price, I still think it's worth it but it makes the
decision a little tougher. I feel much better about it - having thrown
a few stones at Atari. Thanks for reading.